

MES COLLEGE OF ENGINEERING, KUTTIPPURAM
DEPARTMENT OF COMPUTER APPLICATIONS
20MCA245 – MINI PROJECT

PRO FORMA FOR THE APPROVAL OF THE THIRD SEMESTER MINI PROJECT

(Note: All entries of the pro forma for approval should be filled up with appropriate and complete information. Incomplete Pro forma of approval in any respect will be rejected.)

Mini Project Proposal No : 1
(Filled by the Department)

Academic Year : 2021-2022

Year of Admission : 2020

1. Title of the Project : Video Game Development (Shooter)

2. Name of the Guide : Mr. Hyderali K

3. Number of the Student: MES20MCA-2004

4. Student Details

Name(in BLOCK LETTERS):

AMAN ABDUL MALIK K. P.

Roll Number

04

Signature



Date:01/12/2021

Approval Status : Approved

Signature of
Committee Members :

}

Comments of The Mini Project Guide

Dated Signature

Initial Submission :

First Review :

Second Review :

Comments of The Project Coordinator

Dated Signature

Initial Submission:

First Review :

Second Review :

Final Comments :

Dated Signature of HOD

VIDEO GAME DEVELOPMENT (SHOOTER)

Aman Abdul Malik K. P.

Introduction:

In order to create great games, one needs to be well versed in the games that are currently being played and have been successful in the past. This means that one should also play games that you normally would not play and even games that one doesn't like. Not all people like all games. There are many different types of games from entertainment games to educational games, games for health, games for science and many more. Being able to critically look at games and identify which elements work well, which elements could be improved and which elements I might use for my own games will help me become a great game designer.

Breaking into the games industry is possible with a "little bit" of work. It can also be hugely rewarding. As it is now its impossible to think about a world without computers. If not by a long shot I would like to create a top grossing game at some point in my career or at least be part of create one. I hope my mini project to be my stepping stone onto the wide ocean of possibilities in game development and hope to strike gold someday. I am sure that I will thoroughly enjoy myself while doing so..

Objectives:

I will be focusing on creating a first person shooter game. Shooter video games or shooters are a sub-genre of action video games where the focus is almost entirely on the defeat of the character's enemies using the weapons given to the player. Usually these weapons are firearms or some other long-range weapons, and can be used in combination with other tools such as grenades for indirect offense, armor for additional defense, or accessories such as telescopic sights to modify the behavior of the weapons. A common resource found in many shooter games is ammunition, armor or health, or upgrades which augment the player character's weapons. Shooting games are very popular these days. Shooter games test the player's spatial awareness reflexes and speed in both isolated single player or networked multiplayer environments. Shooter games encompass many sub-genres that have the commonality of focusing on the actions of the avatar engaging in combat with a weapon against both code-driven NPC enemies or other avatars controlled by other players.

Since game development is time consuming and laborious, the primary objective of the project is the time bound release of a playable version of the game with limited functionalities which is supposed to be enhanced or updated in the main project.

Problem Definition:

Understanding Unity will be the key for the progress of this project. Initially, the templates provided by unity will be thoroughly gone through and fiddled with. If possible it will be incorporated in to the said project.

We will be aiming to create a shooter game in the FPP (First Person Perspective). The player will be able to navigate an interactive menu, choose a desired character, map, game mode, details of all of which will be provided in the respective interfaces. An arsenal of weapons and characters specific special abilities will also be available

This game will emphasis on player versus enemy combat. Here by enemy we mean computer controlled enemies since our game is single player. The player will be surviving waves of enemies, difficulty of which scales with the wave count and time. The player is awarded score or credits which can be utilized to upgrade the character specific specials, unlock new weapons, buy explosives, skins, and much more.

Basic Functionalities:

There will be an intuitive UI. The depth and count of the following features would be determined by the time constraint.

- Maps
- Characters
- Firearms
- Specials
- Music or SFX
- GFX
- Sprites
- Game Modes

Tools / Platform, Hardware and Software Requirements:

- Unity and Unity Hub essential for the progress of this project.
- Photoshop would be used to modify sprites
- Blender asset may or may not be used depending on ease of access and taking into consideration whether it is possible to incorporate them in to the app.
- Some sound mixers and open source sprites, music, sfx will be used.
- Any modern smart phone would suffice.
- Minimum Specs: 4 GB RAM, intel i3 processor, intel HD
- Recommended: 8 GB RAM, intel i5 processor, intel UHD or higher.